

## Vax-CT to promote formation of cancer-specific T memory stem cell for personalized cancer immunotherapy

### Grant Award Details

Vax-CT to promote formation of cancer-specific T memory stem cell for personalized cancer immunotherapy

**Grant Type:** Quest - Discovery Stage Research Projects

**Grant Number:** DISC2-14169

**Investigator:**

<b>Name:</b>	Song Li
<b>Institution:</b>	University of California, Los Angeles
<b>Type:</b>	PI

**Award Value:** \$2,267,714

**Status:** Pre-Active

### Grant Application Details

**Application Title:** Vax-CT to promote formation of cancer-specific T memory stem cell for personalized cancer immunotherapy

**Public Abstract:** **Research Objective**

A vaccine booster to induce antigen-specific T memory stem cells that will help enhance the long-term immunity against cancer recurrence

#### Impact

Cancer recurrence presents an unmet medical need. Cancer vaccines are promising, but often lack a long-term protection. We will induce T memory stem cells (TMSCs) to boost the long-term immunity.

#### Major Proposed Activities

- To Develop Micro-/nanoparticles for a Sustained Release of Small Molecule and T Cell Activation Signals to Promote the Formation of TMSCs and Tumor-Antigen-Specific DCs In Vitro
- To Investigate the Induction of TMSCs by Injectable Cancer Vaccine Booster in Young and Aged Mice
- To Investigate the Prevention of Cancer Recurrence in Murine Models

**Statement of Benefit to California:** Cancer recurrence presents an unmet medical need. Chemotherapy and radiation therapy have side effects. Cancer vaccines are promising, but may not achieve a long-term protection, especially in the elderly. Our approach can boost the therapeutic efficacy of the cancer vaccines, and help protect the patients with a more effective and less painful therapy, which will greatly reduce the burden of the healthcare and benefit the society.

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